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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/745,857 | 12/26/2000 | Ching-Feng Lai | BHT/3111/141 | 2208 |

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DOUGHERTY & TROXELL
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EXAMINER

ADDISON, KAREN B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2834

DATE MAILED: 07/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,857

Applicant(s)

LAI ET AL.

Examiner

Karen B Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-19 and 21-26 is/are rejected.
- 7) ☒ Claim(s) 7 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 recites the limitation " the gap " in line16. There is insufficient antecedent basis for this limitation in the claim.
3. Claim 14 recites the limitation " the gap" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

4. Claims 7 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,5,9-15,18,22-26 is rejected under 35 U.S.C. 102(b) as being anticipated by Dohogne (4,973872).

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Dohogme discloses in fig.1-3 a permanent magnet rotor positioning and retaining device comprising: a sleeve having a tubular structure (8), a rotor iron core (3) shaped as a round steel pole made of stack steel plates (stamp fabricated) having a plurality of grooves(6) circumferentially provide inside the sleeve and a shaft hole. Wherein, the trapezoid –shape grooves are capable of fitting closely with the base (c) of the trapezoid protrusion, so that the grooves and the base are engage in sliding fashion. Dohogne also discloses, four arc shaped permanent magnets (4) of alternating poles having a cut-off (col.3 line 50) area in the outer perimeter corners of two adjacent permanent magnets; so as to form a near triangle - shaped region between two adjacent permanent magnets. Wherein, the plurality of dividers (9) is between the two adjacent magnets, sleeve, and the rotor iron core. Which is separated from one another by four dividers. The dividers are made of a material having poor or none magnetic conductivity (plastic col.4 line 29) having a base (C) closely engaged with a groove so that the divider are secured the rotor core; a trunk (B) for filling the gap between two adjacent permanent magnets moving in a circumferential direction; and a rim (A) having a triangle – shape structure in close contact with the cut-off area so as to prevent the permanents from moving in a radial direction.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4,6,8-17,19 and 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dohogne in view of Takeda (5828152).

As seen above Dohogm in paragraph (5) disclose substantially the claim invention, however Dohogm does not discloses the rotor core having a plurality of narrow arc-shaped holes circumferentially provide around the shaft.

Takeda show in fig.2 and 7a permanent magnet rotor positioning and retaining device comprising: rotor core (3) having a shaft hole (A) and a plurality of narrow arc shaped holes (b) circumferentially provide around the shaft for the purpose of reducing the weight of the motor. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotor core of Dohogne with the iron core of Takeda for the purpose of reducing the weight of the motor and simplify manufacturing procedures.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to chose silicon steel for the laminated steel rotor core since it has been held to be with in the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ416.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KBA
July 12, 2002



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800